

... and materials for the tool body, the
... heated to 400-550 °C and the edges deposited
by welding. The welds cool to 400-550 °C in a few min-
utes on account of the great heat conduction of the body.
Therefore softening cannot occur and the hardening
of the edges is ensured. Post-treatment is effected by
heating the tools in an undercooled austenitic state
... 550 °C for 5-6 hours and then cooling them

Z/038/62/000/004/006
D291/D301

AUTHOR: Imriš, Pavel
TITLE: The influence of the zeta electrokinetic potential
on the sedimentation rate of a U_3O_8 suspension

PERIODICAL: Jaderná energie, no. 4, 1962, 125 - 126

TEXT: This is a brief abstract of the Report No. 500 of the
ÚJV CSAV (Nuclear Research Institute of the Czechoslovak AS). The re-
port describes (1) an electrophoretic method to measure the changes of
relative electrokinetic-potential values in a U_3O_8 suspension ($1-10 \mu$)
depending on the concentration and kind of stabilizing electrolyte
(sodium-pyrophosphate, NaOH, KOH, HCl, HNO_3); (2) a method to measure
the sedimentation rate of U_3O_8 suspensions of low and high concentra-
tions (up to 10 g U_3O_8 /liter and up to 140 g U_3O_8 /liter), based on
measuring the natural radioactivity of uranium and the gamma-radiation
absorption in mass; finally it compares the results of both measuring
methods. The electrokinetic potential of the U_3O_8 suspension reaches a

Card 1/2

The influence of the zeta ...

Z/038/62/000/004/004/006
D291/D301

maximum in a sodium-pyrophosphate medium at a concentration of 0.03 - 0.04 %, in NaOH and a KOH medium at a concentration of 0.02 %, and has no critical value in the HCL and HNO₃ medium at lower concentrations. The sedimentation rate of an 8g U₃O₈/liter suspension reaches a minimum at a sodium-pyrophosphate concentration of 0.03 - 0.04 %. The original report has 27 pages and includes 2 tables, 21 figures, and 25 references.

Card 2/2

Z/038/62/000/004/005/006
D291/D301

AUTHOR:

Imriš, Pavel

TITLE:

Differential thermal analysis of U_3O_8 and mixtures of U_3O_8 with Mg, Zr, and Be oxides

PERIODICAL:

Jaderná energie, no. 4, 1962, 126

TEXT:

This is a brief abstract of the Report No. 501 of the ÚJV CSAV (Nuclear Research Institute, Czechoslovak AS). The differential thermal analysis (DTA) up to 1,100 and 1,500°C is described for U_3O_8 and mixtures of U_3O_8 and MgO (Mg:U ratios 1 : 1, 2 : 1, 3 : 1, and 1 : 3), U_3O_8 and ZrO_2 (ratio 1 Zr : 1 U), and U_3O_8 and BeO (ratio 1 Be : 1 U). The instrument for DTA, consisting of a 1,500°C heat source, an automatic recorder, two series-connected Pt, Pt + 10 % Rh thermocouples, and an Al_2O_3 reference, has a temperature-elevation rate of 10 - 12°C/min. The U_3O_8 samples caused neither exothermal nor endothermal reaction distortion up to a temperature of 1,150°C. At 1,150°C, however, the thermal conductivity changed slightly and remained then constant

Card 1/2

00000618610005

Z/012/62/000/001/005/007
E112/E453

AUTHOR: Imriš, Pavel

TITLE: A thermobalance with automatic recording of
temperature- and weight-differences, and a mercury
temperature-programmer

PERIODICAL: Silikáty^A no.1, 1962, 91-99

TEXT: Schematic diagrams and operational details of an improved and fully automatic thermobalance-unit are presented under the following three main headings: 1) spring balance, with weight-change detector and electric furnace; 2) mercury temperature programmer; 3) light- and photo-cell circuitry. A sketch of the balance is shown in Fig.1. A silica spiral (6) is suspended from a glass-hook (2) in a tube (4) of internal diameter 40 mm. The latter is surrounded by two condensers (5,15) and is attached at its lower end to a silica tube by means of a ground joint (17). After narrowing (20) the tube terminates with a round-bottomed end. A platinum wire (7), attached to the silica spiral, supports the sample holder (23). The silica tube is inserted into the electric furnace, closed at the lower end by a metal cylinder (25), housing
Card 1/5

Z/012/62/000/001/005/007

E112/E453

A thermobalance with automatic ...

the thermocouple (26). The outer part of the silica tube is insulated by a 4 mm layer of MgO and a metal mantle (24). Other numbering: 3 - gas inlet for specified atmospheric conditions; 18 - gas outlet; 16 - tube with stopcock to measure gas pressure in the apparatus. The weight-difference detector consists of a square opaque aluminium flag (14), attached to the platinum wire, a source of collimated light (10) and photocell (9). The light source is a 4.8 W lamp operated from a stabilized voltage source. The calibration of the temperature-difference recorder is described in detail. The output of the photocell is fed to a six-point recorder, which is arranged to register temperature and weight changes with a delay of 3 sec. A sketch of the temperature programmer is shown in Fig.2. A resistance wire (8) in tube (7) is connected at one end to one terminal of the transducer system (11) while its other end connects via a source of d.c. to the other terminal of the transducer winding. The effective winding of transducer (11) is in series with a source of a.c. and the heating element of the furnace. A mercury reservoir (12) forces mercury into tube (7) through tubing (3) and capillary (4). A side

Card 2/5

A thermobalance with automatic ...

Z/012/62/000/OC1/005/007
E112/E453

arm (1), which is flexible and may be set in position at different angles, programmes the heating of the electric furnace. It is provided with a metal spiral (6). The speed of flow of the mercury in the tube (7) regulates the resistance of wire (8) which then affects, via the transducer (11), the heat program of the electric furnace. Also included is a description of the light and photocell circuitry. The described weight-change recorder permits the use of highly sensitive silica spirals. The sensitivity of four different silica spiral types of Czechoslovak origin is tabulated. The mechanical and electrical system of the unit is claimed to be capable of registering a 0.0032 mm deflection of the spiral balance with an accuracy of 0.06%. There are 3 figures, 2 tables and 16 references: 5 Soviet-bloc and 11 non-Soviet-bloc. The four most recent references to English language publications read as follows: Ref.1: Gordon S., Campbell C. Anal. Chem., v.32, 1960, 271 R; Ref.5: Hooley J.G. Can. J. Chem., v.35, 1957, 374; Ref.9: Stephenson J.L., Smith G.W., Tranthan H.V. Rev. Sci. Instr., v.28, 1957, 380; Ref.11: Rabatin J.G. Anal.Chem., v.31, 1959, 1689.

ASSOCIATION: Ústav jaderného výzkumu ČSAV, Praha
(Institute for Nuclear Research ČSAV, Prague)

Card 3/5

IMRIS, Pavel; LANDSPERSKY, Hanus; VOBORIL, Miroslav

Use of the sedimentation analysis in examining the distribution of UO_2 particles of U_3O_8 calcinated under different conditions. JADERNA energie 10 no. 2:53 F '64.

1. Ustav jaderneho vyzkumu, Ceskoslovenska akademie ved, Rez.

MRIS, Pavel

Preparation of UO_2 by the reduction of U_3O_8 in hydrogen and the effect of the heat treatment of U_3O_8 on the UO_2 properties.
Jaderna energie 10 no. 3:86 Mr '64.

1. Nuclear Research Institute, Czechoslovak Academy of Sciences,
Rez.

IMRIS, Pavel; IMRISOVA, Rana

Reflection spectra of UO_2 prepared from variously calcinated U_3O_8 . Jaderna energie 10^{no.7}:255-258 21⁸⁴

1. Institute of Nuclear Research, Czechoslovak Academy of Sciences, Rez.

L 18487-66 EWT(m) ES
 ACC NR: AP6010241 SOURCE CODE: CZ/0033/65/000/005/0181/0181
 AUTHOR: Imris, Pavel
 ORG: Institute for Nuclear Research, CSAV, Rez (Ustav jaderného výzkumu CSAV) 33
 TITLE: Thermogravimetric study of the oxidation of UO sub 2 particles prepared from U sub 3 O sub 8 calcined under varying conditions B
 SOURCE: Jaderna energie, no. 5, 1965, 181
 TOPIC TAGS: oxidation, uranium compound, inorganic oxide, gravimetric analysis, thermodynamics, calcination
 ABSTRACT: UO₂ with a surface area of 1-6 sq m / g was prepared by calcination of U₃O₈ at 610°-1000°C. Experimental results of oxidation of UO₂ to UO₂.333 ± 0.012 were used to compute activation energy; using the isothermal method, 27 2 kcal/mole was obtained; and with the nonisothermal, 23 kcal/mole. Reaction order varied between 1.1 and 1.9. Various fractions of a sample of UO₂ showed greatly different behavior during oxidation.
 [JPRS]
 SUB CODE: 07, 20 / SUBM DATE: none
 Card 1/1 UDC: 546.791.4: 545.8 2

L 07529-67 EWT(m)

ACC NR: AP6023319

(N)

SOURCE CODE: CZ/0012/66/000/002/0205/0214

AUTHOR: Landspersky, Hanus--Landsperski, G.; Imris, P.--Imrish, P.

44

B

ORG: Institute of Nuclear Research, CSAV, Rez near Prague
jaderneho vyzkumu CSAV)

(Ustav

TITLE: Measurement of sedimentary material with the aid of radioactive radiation

SOURCE: Silikaty, no.2, 1966, 205-214

TOPIC TAGS: ~~detection, detection equipment, radioactive agent,~~ radiation, radiation detector, radioactive tracer, uranium compound, uranate, radioactivity, radioactive decay, gamma radiation

ABSTRACT: The article describes the application of several methods for determining the dust particle distribution of uranium compounds which are based on the utilization of radioactive isotopes, the natural radioactivity of the decay products of uranium, and describes in particular a method developed for measuring the sedimentation material at the bottom of a sedimentation tube, U_3O_8 , UO_3 , UO_2 and ammonium polyuranate, operating on the same principle. The measurement of the sediment material was carried out on the basis of determining the radioactivity of the sediment, and also from the absorption of γ -radiation in the sediment material. The principles of both methods are discussed and data are given on the equipment used. The advantages of the method based on the radiometric indicator are its overall simplicity and relatively high accuracy of sediment material determination ($\sim \pm 1\%$). In using the method based on

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L 07529-67

ACC NR: AP6023319

Y-radiation absorption it is possible to avoid neutron activation of the solid phase suspension. It is also possible to measure the sedimentation rate of the suspension at high temperatures and pressures should this data be required for technological measurements. Orig. art. has 5 figures and 2 tables.

SUB CODE: 18, 07/

SUBM DATE: 19Mar65

ORIG REF: 005/

OTH REF: 013/

Card 2/2 *gd*

IMRIS, Pavel; IMRISOVA, Jana

Reflection spectra of UO_2 prepared from variously calcinated
 U_3O_8 . Jadrna energie 10 no.7:255-256 21'64

1. Institute of Nuclear Research, Czechoslovak Academy of
Sciences, Rez.

GURTOVOY, B.L.; IMSHENETSKAYA, K.I.

Calcium and phosphorus in the milk of parturients under the
climatic and geographical conditions of dry subtropics. Zdrav.
Turk. 8 no.1:16-19 Ja '64. (MIRA 17:5)

1. Iz kafedry akusherstva i ginekologii (zaveduyushchiy - dotsent
B.L. Gurtovoy) Tadzhikskogo gosudarstvennogo meditsinskogo instituta,
imeni Abuali Ibn-Sino.

IMSHENETSKAYA, L.I.

DZHORDZHADZE, V.A.; BERNZOVA, Ye.F., doktor biologicheskikh nauk, professor;
BUSHINSKIY, V.P., akademik; GERASIMOV, V.P., dandidat pedagogicheskikh
nauk; DOBROLYUBOVA, Ya.M., dotsent; IVANOV, P.P.; IMSHENETSKAYA, L.I.;
TEREKHOV, V.D., redaktor; YUSFINA, N.L., tekhnicheskii redaktor

[Publicizing the natural sciences in connection with practical problems
in agriculture] Propaganda estestvennonauchnykh znaniy v svyazi s
prakticheskimi zadachami sel'skogo khoziaistva. Moskva, Gos. izd-vo
kul'turno-prosvetit. lit-ry, 1956. 158 p. (MLRA 9:11)
(Agriculture--Study and teaching)

IMSHENETSKAYA, Lidiya Ivanovna,; NEKHLYUDOVA, A.S., red.; TSYPO, R.V., tekhn. red.

[Plant world; an anthology for teachers in elementary schools]
Mir rastenii; khrestomatia dlia uchitelei nachal'noi shkoly.
Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1957. 229 p.
(MIRA 11:11)

(Plants)

IMSHENITSKAYA, L.I., uchitel'nitsa (Moskva)

Independent work of students at schools for working youth. Biol.
v shkole no.5:46-49 S-O '60. (MIRA 13:11)
(Biology--Study and teaching)

—IMSHENETSKAYA, V. P. —

"Experimental Tuberculosis of Mice and Its Pathological Morphology."
Cand Med Sci, Acad Med Sci, USSR, Moscow, 1953. (RZhBiol, No 2, Sept 54)

Survey of Scientific and Technical Dissertations Defended at
USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

USSR/Microbiology - Antibiosis and Symbiosis. Antibiotics.

F-2

Abs Jour : Ref Zhur - Biol., No 10, 1958, 43211

Author : Inshenetskaya, V.F.

Inst :

Title : A Study of the Combined Effect of Penicillin and Streptomycin on Organisms Isolated from Cranial-Brain Wounds and Spinal Cord Fluids.

Orig Pub : V sb.: Antibiotiki. Eksperim.-klinich. izuch. M., 1956, 374-375.

Abstract : No abstract.

Card 1/1

15

Inshenetskaya, V.F.

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000618610005-4"

USSR/Microbiology - Antibiosis and Symbiosis. Antibiotics

F-2

Abs Jour : Referat Zhurn - Biol. No 16, 25 Aug 1957, 68471

Author : Inshenetskaya, V.F.

Title : The Study of Mycerin Activity on Microbes Isolated in Pussy Cranial-Brain Complications

Orig Pub : Antibiotiki, 1956, 1, No 5, 31-35

Abstract : The action of mycerin (I) was studied in vitro and in vivo on 30 strains of staphylococcus isolated from patients in 1953-1955. 90% of the cultures proved resistant to action of penicillin, 40% to action of streptomycin and only 3 strains (10%) to action of I. I in the majority of cases depressed the growth of penicillin-resistant forms of microbes, and only in 2 cases were staphylococci resistant to penicillin also resistant to I. Of 12 streptomycin-resistant staphylococci only 3 cultures proved resistant to I. The bacteriostatic dose of I also proved to be bactericidal. In experiments on animals, I is just as effective as is streptomycin.

Card 1/1

- 30 -

IMSHENETSKAYA, V.F. (Cand. of Med. Sci.)

"Study of Combined Action of Penicillin and Streptomycin on Microbes Isolated From Craniocerebral Wounds Through Cerebrospinal Fluid,"

p. 37⁴ Ministry of Health USSR Proceedings of the Second All-Union Conference on Antibiotics, 31 May - 9 June 1957. p. 405, Moscow, Medgiz, 1957.

V. F. IMSHENETSKAYA

ANTIBIOTICS

"Study of Joint Effect of Penicillin and Streptomycin on the Microbes Secreted from Cerebral Wounds and Cerebrospinal Fluid." by V.F. Imshenetskaya, Scientific Research Order of Labor, Red Banner Institute of Neurosurgery imeni Academician N.N. Burdenko of the Academy of Medical Sciences USSR, Voprosy Neurokhirurgii, No 3, May-June 1957, pp 15-21.

The author made an extensive study of the combined action of penicillin and streptomycin secreted from cerebral wounds and spinal fluid.

The cultures were obtained from 20 patients treated in the Institute of Neurosurgery during 1953-1954. In 17 cases, microbes were taken in postoperative periods followed by suppuration. In all, 23 strains of staphylococci were selected, of which 7 came from cerebral wounds and 16 from spinal fluid.

The author gives a very detailed description of the technique applied, and draws the following conclusions:

1. From experiments performed on mice, it appears that the administration of penicillin to animals pre-infected by penicillin-resisting forms of staphylococcus proved ineffective.

-7-

1/2

2/2

SHUTSER, V.I., doktor med.nauk; SHLYKOV, A.A., prof.; IMSHENETSKAYA, V.F.,
kand.med.nauk

Use of a rapid method for determining the effect of antibiotics in suppurative inflammatory lesions of the central nervous system.

Probl.sovr.neirokhir. 3:407-414 '59.

(MIRA 16:6)

(NERVOUS SYSTEM--DISEASES) (ANTIBIOTICS)

SHLYKOV, A.A., prof.; SHTUTSER, V.I., doktor med.nauk; IMSHENETSKAYA, V.F.,
kand.med.nauk; TRIADSKAYA, M.I., vrach; GLADKOVA, K.K., vrach

Use of antibiotics under systematic control of their activity
in suppurative inflammatory processes of the brain and its
meninges. Probl.sovr.neirokhir. 3:425-431 '99.

(MIRA 16:6)

(ENCEPHALITIS) (ANTIBIOTICS)

IMSHENETSKAYA, V.F.

Study of the effectiveness of crystallomycin, erythromycin, mycerin,
and sekazine in experimental meningitis. Antibiotiki 5 no.1:119-121
Ja-F '60. (MIRA 13:7)

1. Nauchno-issledovatel'skiy institut neyrokhirurgii imeni N.N.Burdenko
AMN SSSR.

(ANTIBIOTICS)

(MENINGITIS)

IMSHENETSKAYA, V.F.; VASIN, N.Ya.

Studies on the effect of subarachnoid mycerin on the central nervous system under experimental conditions. Antibiotiki 6 no.1:44-49 Ja '61. (MIRA 14:5)

1. Nauchno-issledovatel'skiy ordena Trudovogo Krasnogo Znameni institut neyrokhirurgii imeni akademika N.N.Burdenko.
(ANTIBIOTICS) (RESPIRATION)

IMSHENETSKAYA, V.F.

Effectiveness of mycerin in neurosurgery; experimental investigation.
Antibiotiki 6 no.5:446-449 My '61. (MIRA 14:7)

1. Institut neyrokhirurgii imeni akademika N.N.Burdenko-AMN SSSR.
(ANTIBIOTICS) (STAPHYLOCOCCUS)
(NERVOUS SYSTEM—SURGERY)

IMSHENETSKAYA, V.F.

All-Union Problem Commission on the "Surgery of the nervous system." Vop. neurokhir. 27 no.5:59-60 S-O '63.

(MIRA 17:5)

SHUTSER, V.I., doktor med. nauk; IMSHENETSKAYA, I.F., kand. med. nauk

Pathogens of suppurative cerebrocranial complications and
their relation to antibiotics, Vop. neirokhir. no.1:57-59
'65. (MIRA 18:10)

1. Nauchno-issledovatel'skiy ordena Trudovogo Krasnogo
Znameni institut neyrokhirurgii imeni N.N. Burdenko
(direktor - prof. A.I. Arutyunov) AMN SSSR, Moskva.

L 5236-66 EMT(1)/EWA(j)/EWA(h)-2 JK
ACC NR: AP5025975

SOURCE CODE: UR/0297/55/010/009/0816/0819

AUTHOR: Imshenetskaya, V.F.

ORG: Institute of Neurosurgery im. N.N. Burdenko AMN SSR, Moscow (Institut neyrokhirurgii)

TITLE: Effect of antibiotics on pyogenic streptococci isolated in diseases involving cerebral inflammation

SOURCE: Antibiotiki, v. 10, no. 9, 1965, 816-819

TOPIC TAGS: penicillin, streptomycin, tetracycline, antibiotic, infective disease, bacterial disease

ABSTRACT: The sensitivity of pyogenic streptococci to penicillin, streptomycin, levomycetin, chlorotetracycline, oxytetracycline, tetracycline, mycerin, and erythromycin was studied. Experiments in vitro were carried out on 122 hemolytic and nonhemolytic streptococcal strains with typical morphological, cultural, and biochemical properties. Among pyogenic streptococcal strains appearing in patients suffering from cerebral inflammation, microbial types resistant to antibiotics are frequently observed. The greatest number of stable cultures of pyogenic streptococci (68-48%) was found in the presence of streptomycin, mycerin, and chlortetracycline; a smaller number (29-30%) was found in the presence of penicillin and levomycetin, and the smallest number (9%) in the presence of erythromycin. The latter is the most effective preparation for treatment of experimental meningitides caused by stable streptococcal forms. Intravenous use of norsulfazole together with

Card 1/2

L 5236-66

ACC NR: AP5023975

penicillin or mycerin does not increase the effectiveness of these antibiotics in experimental meningitis. The importance of the pyogenic streptococcus as an etiological factor of cerebral inflammatory diseases has declined sharply in recent years. Orig. art. has: 2 tables.

SUB CODE: IS, CB / SUB DATE: 25Dec64 / ORIG REF: 005 / OTH REF: 005

PC
Card 2/2

IMSHENETSKAYA Ye F

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SOV/44-58-4-2980

Translation from: Referativnyy zhurnal, Matematika, 1958,
Nr 4, p 79 (USSR)

AUTHOR: Imshenetskaya, Ye. F.

TITLE: The Basis of the Applicability of the Method of Successive Approximations in the Solution of the First Interior Boundary Value Problem for a System of Equations of the Theory of Elasticity (Obosnovaniye primenimosti metoda posledovatel'nykh priblizheniy pri reshenii pervoy vnutrenney krayevoy zadachi dlya sistemy uravneniy teorii uprugosti)

PERIODICAL: Dokl. L'vovsk. politekhn. in-ta, 1957, 2, Nr 1,
pp 3-9

ABSTRACT: The problem mentioned is solved by means of representing the displacement vector by the potential of surface deformations (Fredholm substitution). For the study of the derived integral equation, a study is made of the Weyl conjugate equation. The well-known Poincaré method for the study

Card 1/2

30V/44-58-4-2980

The Basis of the Applicability (Cont.)

of integral equations of the problems of Dirichlet and Neumann are extended to the theory of elasticity. As a result the applicability of the method of successive approximations to the solution of the first interior problem of the theory of elasticity by means of a Fredholm integral equation is proven.

REVIEWER'S NOTE: The fundamental solutions of the equations of the theory of elasticity are written incorrectly (the superfluous factor $1/r^2$).

I.S. Arzhanykh

Card 2/2

INSHENETSKIY, A. A.

"Critique of Metaphysical Theory of the Bacterial Mutability (Cyclogeny),"
Mikrobiol., 8, 5, 491-503, 1930

137 AND 138 SERIES

PROCESSING AND REPRODUCTION INDEX

A-3

Classification of oxides as follows by Gurn
A. A. Thompson (Proc. Acad. Sci. U.S.A.
1928, No. 1, pp. 509).—The toxicity of oxides to
yeasts increases in the order cyan-blue < Orange-
red < green < cream-blue < Blackish-brown < Neutral-
red; the toxic action of X-rays in the presence of
dyes is > that of the sum of their actions taken
separately.

R. T.

MATERIALS INDEX

ABO-SLA METALLURGICAL LITERATURE CLASSIFICATION

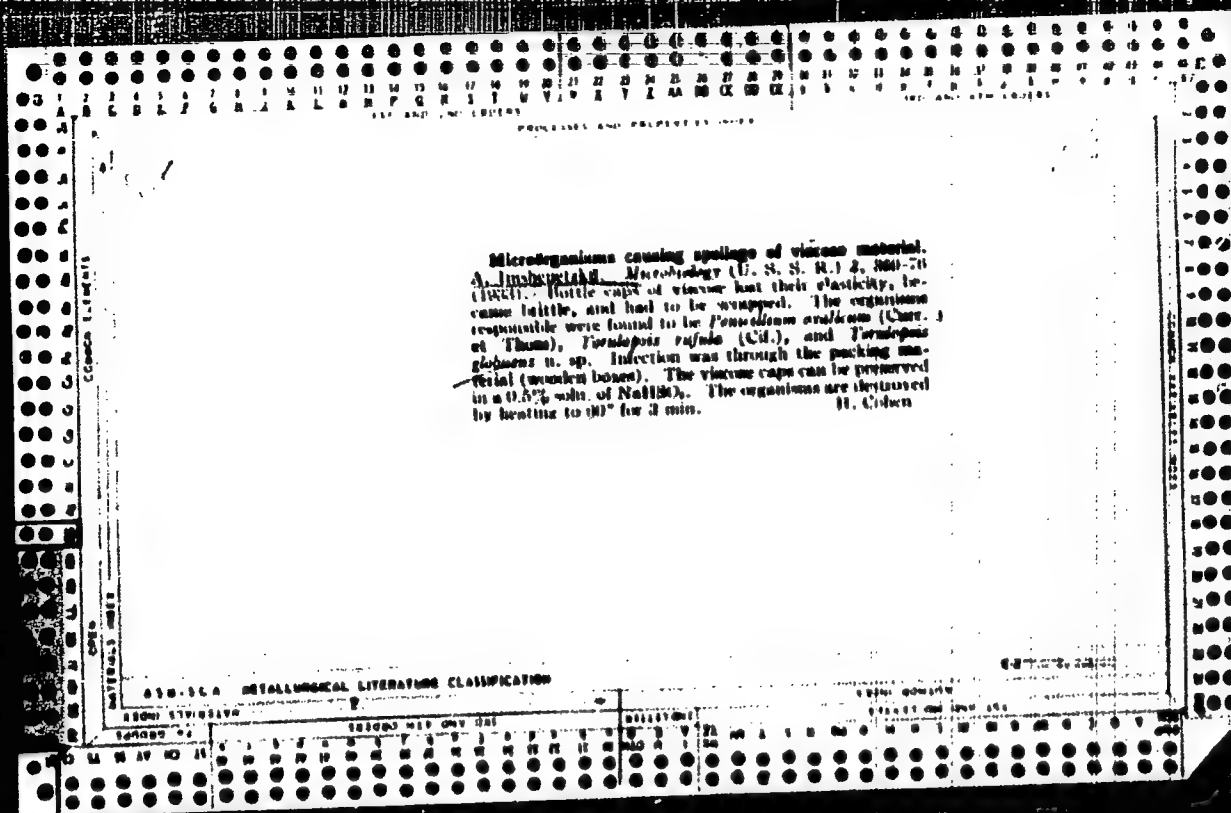
SEARCH SERVICE

COLLECTOR

11A

CP

The effect of hormones on yeasts, molds and bacteria. A. A. Iuhenetzkiy. *Bull. acad. sci. U. R. S. S., Class sci. math.* 1933, No. 10, 1550-77 (in English 1578).—Thyreoidin (a Russian prep. of whole thyroid gland) accelerates the process of spore germination and propagation of the following yeasts and molds: *Saccharomyces ludwigii*, *Mucor pusilliorum*, *M. racemosus*, *M. racemosus*, *Rhizopus nigricans*. Thyroxine, I and NaI do not have these effects. The stimulating action on the germination of bacterial spores (*B. megatherium* and *B. mycoides*) is weaker and there is no action on their growth. Thyreoidin accelerates alk. fermentation. Heated thyreoidin is inactive. The effects observed are not due to the nutrient properties of the protein, since pulverized brain and blood serum were inactive. In the presence of adrenaline cells of *S. ludwigii* grow much larger, and assume a mycelial appearance. There is also an increase in the no. of vacuoles and accumulation of fat and coarse granular cytoplasm. Insulin causes the disappearance of glycogen in the cells of *S. cerevisiae*. I. considers the observed stimulations to be specific with regard to the hormone and to be due to an acceleration of the enzymic processes occurring in the cells. L. W. H.



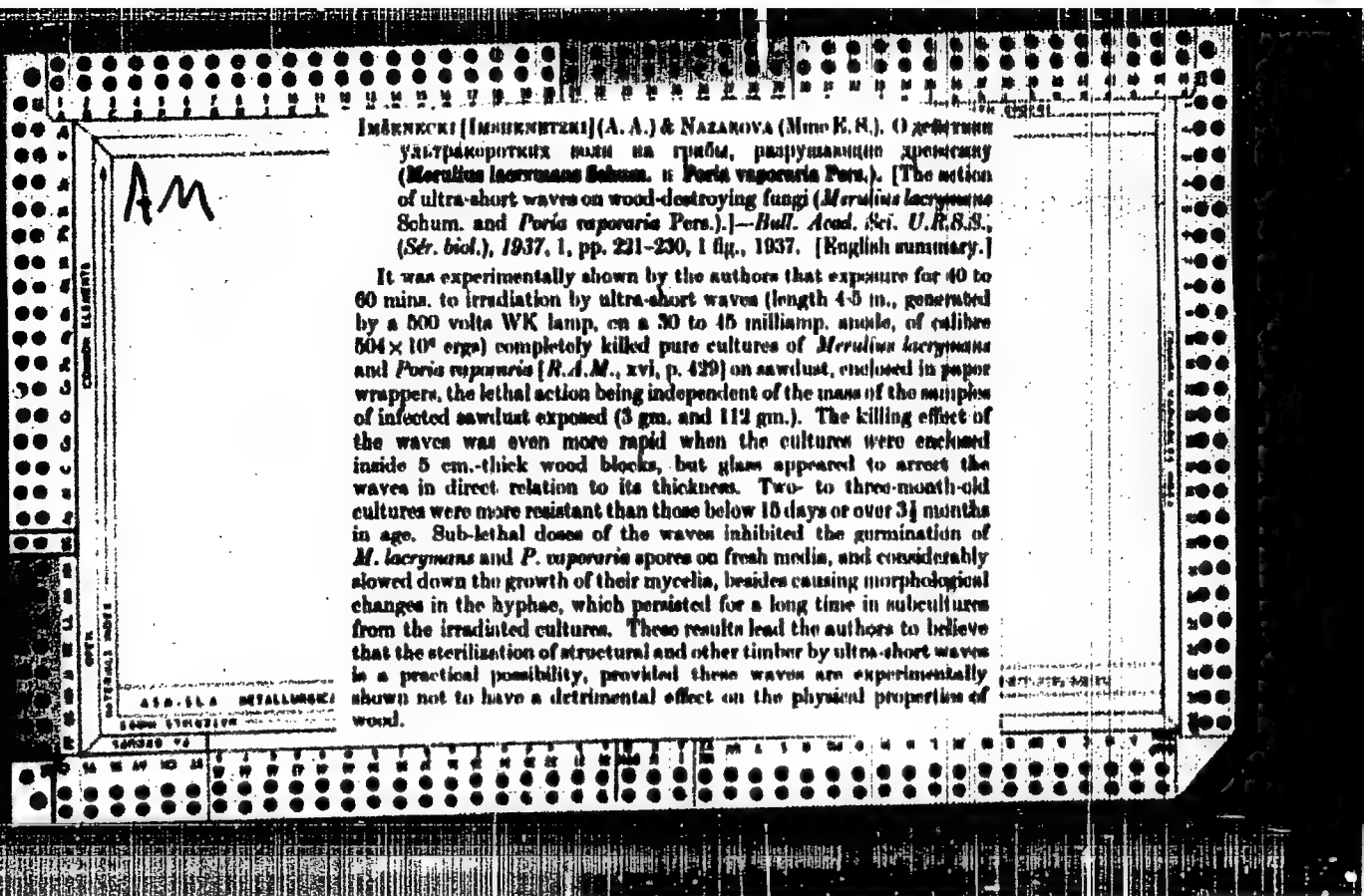
IMSHENETSKIIY, A. [A.]

"A Critique of the Metaphysical Theory of Variability in Bacteria (Cyclogenesis)," Mikrobiologiya / Microbiology, Vol. 8, No 5, p 491, 1934.

IMSHENETSKIY, A. A.

IMSHENETSKIY, A. A. "Present State of the Question as to the Nucleus in Bacteria,"
Priroda, no. 1, 1935, pp. 38-45. 410 F933.

So: SIRA SI -90-53, 15 Dec. 1951.



IMSHENETSKIY, A. A.

IMSHENETSKIY, A. A. "On the Morphology of Giant Bacterial Cells." Comptes Rendus (Doklady) de l'Academie des Sciences de l'URSS, vol. 16, no. 4, 1937, pp. 215-219. 511 P444.

So: SIRA SI-90-53, 15 Dec. 1951

1ST AND 2ND COLUMNS		PROCESSING AND PROPERTIES INDEX		1ST AND 2ND COLUMNS	
		<p>Hydrolysis of cellulose by aerobic bacteria. A. A. Imberti. <i>Microbiology (U. S. S. R.)</i> 7, No. 6, 984-8 (1968); <i>Khim. Revoiz. Zhur.</i> 1969, No. 7, 121. No reducing substances or volatile acids were found among the products of decomp. of cellulose by cellulose bacteria. However, on a medium with cellulose as the only source for C, yeasts and N bacteria were able to develop symbiotically. These microorganisms cannot utilize cellulose directly. This fact led to the supposition of the formation of products which are oxidized in pure cultures of cellulose bacteria. To verify this possibility, expts. were performed with pure cultures of <i>Cellulobacter vulgaris</i> and <i>Cytophaga hutchinsoni</i> under a limited supply of O. The rate of decomp. of cellulose in a limited supply of O was approx. $\frac{1}{2}$ to $\frac{1}{3}$ of that under conditions of normal aeration. With <i>Cellulobacter vulgaris</i> the accumulation of glucose reached 17%, while with <i>Cytophaga hutchinsoni</i> only traces of sugar were found. The expts. confirmed the supposition that the aerobic cellulose bacteria decompose cellulose in 2 phases. The final product of the 1st phase is glucose, which is oxidized in the 2nd phase to CO₂ and H₂O.</p> <p style="text-align: right;">W. R. Henn</p>			
<p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p>		<p>1ST AND 2ND COLUMNS</p>		<p>1ST AND 2ND COLUMNS</p>	

1A

Sugar fermentation in cocoon by thermophilic bacteria.
 A. Imshenetskiy. *Compt. rend. acad. sci. U. R. S. S. 21*,
 1572-1573 (1967).—A pure culture of bacteria was obtained
 which, in the presence of complex nitrogenous substances,
 was able to hydrolyze cellulose anaerobically at 60°.
 Sugar accumulated in the media after 4-17 days to an ex-
 tent of 60-75% of the cellulose degraded. The phenyl-
 zyme of glucose was isolated from the culture media. The
 indication that the bacteria were able to utilize glucose as
 a source of energy was confirmed by their development in
 a 1% glucose medium instead of cellulose. The accumu-
 lation of the glucose in the presence of cellulose was ex-
 plained by the suggestion that the pure culture was under
 nutritional conditions, their natural habitat being a sym-
 biotic with other organisms. C. K. Horner

11 AND 110 508123		PROCESS AND PROPERTIES INDEX		110 AND 110 508123	
<p>Microbiology of anaerobic decomposition of cellulose.</p> <p>1. Isolation of pure cultures of thermophilic cellulose-fermenting bacteria. A. A. Imshenetski. <i>Microbiology</i> (U. S. S. R.) 8, 129-40 (in English, 141) (1939); cf. C. A. 33, 5022²⁴. Soil or horse manure is sown on Viljoen and Peterson's "V" medium (cf. C. A. 29, 2687) and kept at 60°. After 4-5 days, fermentation is completed and passages are made on the same medium. To free the culture from asporogenic bacteria it is heated at 100° for 20 min. Contaminating aerobic species are eliminated by transferring some of the decompd. cellulose into tubes contg. the "V" medium with an addn. of 25% of a 10% fecal ext. ("VL" medium). On evacuation of the air the tubes are sealed. Fermentation starts in 24 hrs. and is completed in 3-4 days. After 3-4 passages on "VL" medium under strictly anaerobic conditions the culture contains only thermophilic anaerobes. For elimination of undesirable anaerobes the culture and its dilns. of 1:10, 1:100 and 1:1000 are incubated on meat-peptone agar at 60° for 24 hrs. Then tubes free from colonies are selected and from the contents cuts are transferred again on the "VL" medium. After 2-3 passages at 60° for 4-5 days final tests on purity are made by (a) inoculation of several commonly used media (must remain sterile), (b) microscopic analysis and (c) biochem. analysis (the glucose content, resulting from hydrolysis of cellulose, should not decrease during fermentation). The presence of cellulose attacking bacteria in media contg. complex N compds. is proved only when the usual selective media contg. complex N compds. ^{complex N compds.} II.</p>					
<p>Microbiology of thermophilic cellulose-fermenting bacteria. <i>Ibid.</i> 353-70 (in English, 371).—Two identical pure cultures were isolated from horse manure. Fermentation was most intense in cellulose media contg. bits of liver, kidney, brain or muscle tissue, or fecal ext. In 3 days the cellulose becomes a yellow amorphous mass. Solid media are broken up under gas formation. Isolated bacteria do not proliferate on meat-peptone broth, potato agar, etc. Inorg. N and amino acids are not assimilated, and cellulose is fermented in the presence of complex N compds. In media contg. proteins fermentation of cellulose proceeds without NH₄ or H₂S elimination, and nitrates are not reduced. Morphologically the thermophiles represent rods subsequently forming terminal spores. They ferment cellulose more rapidly than do mesophiles. The amt. of products of hydrolysis formed in fermentation is in a direct ratio to the amt. of decompd. cellulose. In cultures only a small part of the glucose produced is fermented while the rest (74%) accumulates in the medium. Besides cellulose and glucose, maltose and sucrose are fermented. The optimal temp. for the development of pure cultures is 60-65°. Fermentation</p>					
<p><i>2nd microbiology, AS, USSR</i></p>					

IMSHENETSKIY, A. A.

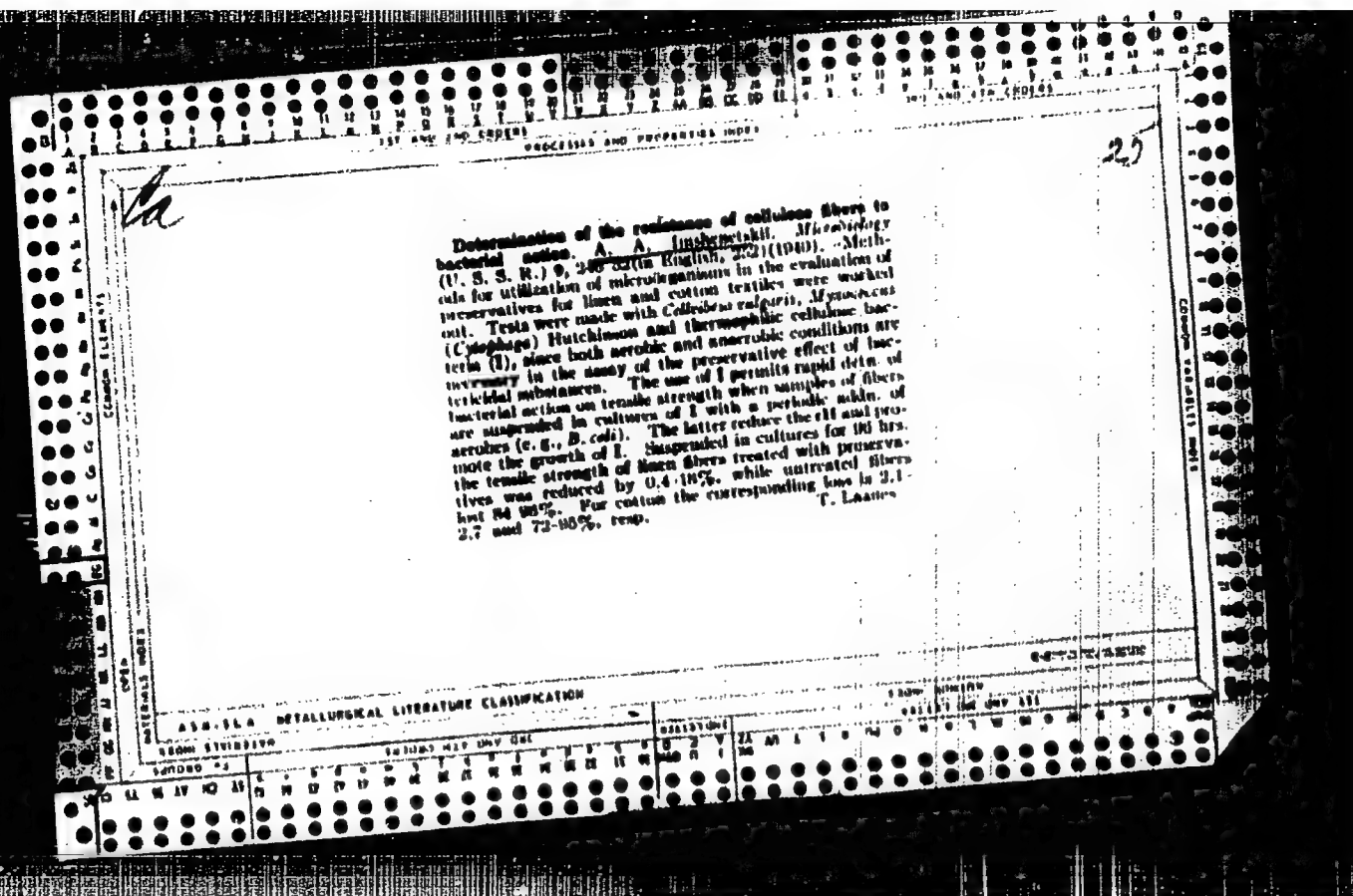
"Criticism on the Metaphysical Theory of the Variability of Bacteria,"
Mikrobiol., 8, No.5, 1939

Inst. Microbiol., AS USSR

IMSHENETSKIY, A.A.

The structure of bacteria
210 p. xxxvi pl.

Moskva, Izd-vo Akademii nauk SSSR, 1940.



IMSHENETSKIY, A. A.

"Microbiology of the Anaerobic Decomposition of Cellulose. IV. Fermentation of Cellulose by Thermophilic Bacteria," Mikrobiol., 9, No.3, 1940

Inst. Microbiol., AS USSR, Moscow

PROCESSES AND PROPERTIES INDEX

ca

11c

Symbiosis of cellulose-decomposing and nitrogen-fixing bacteria. A. A. Imshenetzki and L. I. Solntseva. *Microbiology* (U. S. S. R.) 9, 780-802 (in English, 802-3) (1940); cf. C. A. 35, 4897.—*Myrococcus* (Cytophaga) *hutchinsonii* (I), *Anaerobacter chondrocrum* (II) and *Rhodospirillum rubrum* (III) are symbiotic. The growth of N-fixing bacteria, II and III, is possible only while I is growing also. The presence of II in a culture of I does not accelerate cellulose decompose. Thus between I and II or III only metabolic relations exist. The cellulose fermentation products are utilized by II but II does not fix N in a medium containing these products. The growing II assimilates org. acids first, then the glucose. T. Laane

list: microbiology

ASD-514 METALLURGICAL LITERATURE CLASSIFICATION

IMSHENETSKIY, A. A.

"Stable and Labile R-forms of Sarcinae." Compt. rend. Acad. Sci. USSR, 28, 1940, 274-276.

Sarcina flava grown on potato agar gives a typical rough-form growth; on meat extract-peptone-agar, the colonies are smooth. The latter show typical cells and the former large cells arranged in large groups. The R-form cultures true to type on plates when it has grown for some months on potato agar. The S-form cultured on meat extract-peptone-agar plates produced occasional stable R-colonies which cultures true to type. The initial R-culture when plated gave R- and S-colonies.

Inst. Microbiology.

IPSHENETSKII, A. A.

"Mutability of Bacteria. EXTERNAL Environment and the Formation of Plicated Forms
in the Case of Sarcina," Mikrobiol., 10, 1, 3-14, 1941

1-17 AMP / NO. CAGES		PROCESSES AND PROPERTIES INDEX	
<p>CA</p> <p>The "back" action of glucose on <i>Mycobacteria</i>. A. A. Imshenetskiy. <i>Microbiology</i> (U. S. S. R.) 10, 179-84 (in English, 1941)(1941).—Addn. of 0.3% of glucose to a culture of <i>Mycobacterium hutchinsonii</i> (H) prevents development of I and its capacity to decompose cellulose. The action of glucose is not affected by the decreased pH of the medium. Polysaccharides depress the development of I much less than monosaccharides. T. Laanes</p>		<p>11C</p>	
<p>ASAC-14 METALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>1-17 AMP / NO. CAGES</p>		<p>1-17 AMP / NO. CAGES</p>	

IMSHENETSKII, A. & OTHERS

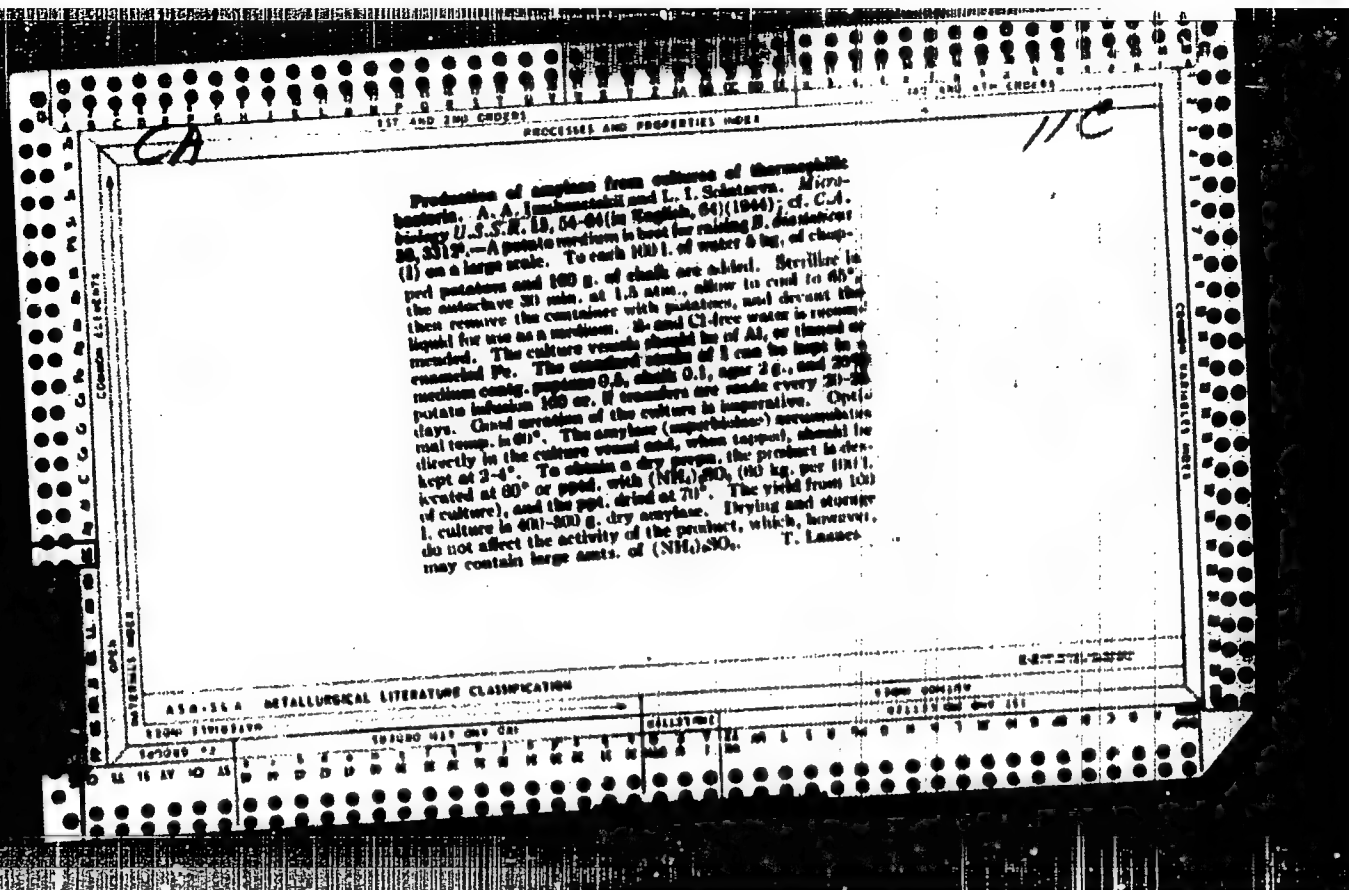
RT-1193 (Influence of the biological factor on concrete) Vliianie biologicheskogo faktora na beton.

MIKROBIOLOGIIA, 10(5), 1941.

LIST AND (NO. ORDER)		PROCESSING AND PROPERTIES INDEX	
<p><i>Ch</i></p> <p>Decomposition of jute in cable wrappings by micro-organisms. A. A. Imshenetskiy and N. K. Kabanova. <i>Microbiology</i> (U.S.S.R.) 1961; 789-81(1961); Chem. Zvest., 1962, 12, 2147.—From destroyed cable wrappings, mainly anaerobic cellulose bacteria (1) were isolated. Tests of bactericidal action on <i>Cellulibacterium C. valisariae</i>, <i>Amylomyces lachnospira</i>, <i>Friedlandia lignorum</i> and anaerobic thermophilic and mesophilic I showed that CuCl₂, CuCl, K₂Cr₂O₇, NaF, AgNO₃ and Ag₂SO₄ still among org. substances, coal tars, etc., are most toxic. Coal tar and emulsion, used for impregnation of jute, do not increase the resistance of the fibers. Anaerobic I reacts to liqwg. compds. better than aerobic I. The latter develop in media contg. 0.01% Cu or Ag salts, while anaerobic I develop at much lower concns.</p>		<p>T. 1.</p>	

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESS AND PROPERTIES INDEX																			
<p>CA 11C</p> <p>Biochemical activity of thermophilic bacteria. A. A. Imshenetskiy. Comp. rend. acad. sci. U. R. S. S. R., 87: 4(1941); Chem. Zvest. 1948, 2, 2706; cf. C. A. 37, 2770. --Thermophilic bacteria are more active in proteolysis, denitration and cleavage of starch and cellulose than mesophilic bacteria. A. R. Meyer</p>																			
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PROCESSES AND PROPERTIES INDEX																			
<p><i>ca</i></p> <p>Denizing textiles. A. A. Imshenetskiy. U.S.S.R. 00- 000, March 31, 1943. THE thermophilic amylase-forming <i>Bacillus distaturnis</i> is used in denizing textiles. M. Housh</p>																			
<p>ASAC-SLA DETALLURONICAL LITERATURE CLASSIFICATION</p>																			
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IMSHENETSKIY, A. A.

IMSHENETSKIY, A. A. "Cellulose Decomposition by Bacteria," Prirada, vol.33.
no.2, 1944, pp. 36-48. 410 P933.

So: SIRA SI-90-53, 15 Dec. 1951

IMSHENETSHIY, A. A.

IMSHENETSHIY, A. A. "On the Nuclear Apparatus of Bacteria," Mikrobiologiya,
vol. 14, no.2, 1965, pp. 65-72. 448.3 M582.

So: SIRA SI-90-53, 15 Dec. 1951

Inst. Microbiology, AS USSR

[illegible]

IMSHENETSKIY, A.A.

~~Experimental'naya izmenchivost' mikroorganizmov.~~ Experimental
variation in microorganisms. Moskva, Izd-vo Akad.nauk SSSR, 1946.
41 p. [Parallel texts in English and Russian] (MIRA 10:12)
(Microorganisms)

PROCESS AND PROPERTY INDEX																																																						
1ST AND 2ND COLUMNS													3RD AND 4TH COLUMNS																																									
CA													11C																																									
<p>Ecology of pigmented microorganisms. I. Protective influence of carotenoids. A. A. Imshenetski (Inst. Microbiol., Moscow). <i>Microbiologia</i> 13, 423-7(1946).-- Resistance to ultraviolet light is lower in nonpigmented microorganisms than in those (e.g. <i>Micrococcus sulfureus</i>, <i>Serratia aurea</i>, and <i>S. lutea</i>) which form pigment but do not excrete it to the medium. Carotenoids have a protective effect. Organisms (e.g. <i>Bact. prodigiosum</i> and <i>Bact. pyoverdium</i>) which excrete pigment to the medium are as sensitive to ultraviolet light as the colorless organisms. II. Antibiotic action of pigments. <i>Ibid.</i> 16, 3-10(1947).--Pigments excreted to the medium by <i>Bact. prodigiosum</i>, <i>Bact. pyoverdium</i>, and <i>B. fluorescens</i> are toxic to amoebas and paramecia. Colorless organisms which do not excrete pigment to the medium are nontoxic and can be used as food by amoebas and paramecia. The active principles prodigiosin and pyoverdinin were obtained by extg. cultures with water, then shaking the ext. with CHCl₃. Julian F. Smith</p>																																																						
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<p>Phylogeny of <i>Amoeba</i> chloreticum. A. A. Imshovitskiy. <i>Microbiologia</i> 12, 488-49 (1966).—Judged by compd. of protoplasm, <i>Amoeba chloreticum</i> (I) is between the <i>Amoebae</i> (II) (e.g. <i>Proterus vulgaris</i>, <i>A. prodigiosa</i>, <i>Ent. coli</i>) and the <i>Cyanophytes</i> (III) (e.g. <i>Microcystis aeruginosa</i>, <i>Gomphonema</i>, <i>Coleophanes</i>, <i>Amoeba</i>). Some species of III are capable of N fixation. The observed P content of I was 0.74-1.06; of II, 1.8-2.5; of III, 0.54-0.97%. The ratio of thymine to pyrimidine nucleic acids is about 2:1 in I; lower in II; about 2:1 in III. The tests were made with Pridmore's nucleic reagent, followed by a Schiff reagent color test. Nucleic acid relations, along with lack of photosynthetic activity, pigment character and cell character place I neither in II nor in III but between them.</p> <p>Julius F. Smith</p> <p>Inst. microbiology</p>																			
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IMSHENETSKY, A. A. (Moscow)

"Experimental Variation in Microorganism" (p.45) by Imshenetsky, A.A.

SO: Advances in Modern Biology (Ushekhi Sovremennoi Biologii) Vol XXI, No. 1, 1946

IMSHENETSKIY, A. A.

IMSHENETSKIY, A. A. "On the Biological Role of Bacterial Pigments," Comptes Rendus (Doklady) de l'Academie des Sciences de l'URSS, vol. 53, 1946, pp. 467-469. 511 P444.

SO: SIRA SI-90-53. 15 Dec. 1951

IMSHENETSKIY, A. A.

IMSHENETSKIY, A. A. "Ecology of Pigmented Micro-organisms, III: Antagonistic Action of Pigments," Mikrobiologiya, vol. 16, no. 1, 1967, pp. 7-10. 648.3 M582

So: SIRA SI-90-57, 15 Dec. 1951

IMSHENETSKIY, A. A.

PA 16724

USSR/Medicine - Bacteriology
Medicine - Soil - Bacteriology

Mar 1947

"A Method of Studying the Antagonistic Action of
Microorganisms on Soil Microflora," A. A.
Imshenetskiy, 3 pp

"Mikrobiologiya" Vol XVI, No 3

A thin layer of agar medium on a slide is exposed
for inoculation to a liquid culture of the
microorganism to be investigated, pulverized in the
air. Soil powder is put on the same plate. The
products of metabolism of the microbe-antagonist
prevent the germination of microorganisms in the
soil particles and decrease the dimension of
colonies forming around the particles.

16724

IMSHENETSKIY, A. A.

USSR/Medicine - Bacteria
 Medicine - Soil - Bacteriology

Sep/Oct 1947

"The Antagonistic Action of Some Microorganisms on
 Microflora of the Soil," A. A. Imshenetskiy. 8 pp

"Mikrobiologiya" Vol XVI, No 5

Many products of the life processes of bacteria have
 antagonistic actions. The concentration of these
 products is especially great in the medium around
 microbe cells. The mechanism of the action of these
 antagonistic materials can be varied: a change of
 the reaction of the medium to alkali or acid, a light
 penetrability of the cell of some poisonous neutral
 products, specific action of pigments, etc. The

18

Products of the life processes of the microbes studied
 delay the growth of all microorganisms found in the
 soil. The action of the antagonistic matter was uni-
 versal and not selective on certain groups of microbes
 only.

IMSHENETSKY, A. A.

PA 8189

USSR/Microbiology

May 1947

"The Discovery of Antibiotics and the Tasks of
General Microbiology," A. A. Imshenetsky, 9 pp

"Byul Eksp Biol i Med" Vol XXIII, No 5

8189

IMSHENETSKIY, A. A.

PA 2/4ST-9

USSR/Medicine - Stains and Staining
Medicine - Bacteria

Nov/Jan 48

"Artefacts Taken for the Nucleus in Bacteria,"
A. A. Imshenetskiy, Inst of Microbiol, Acad Sci
USSR, Moscow, 11 pp

"Mikrobiol" Vol XVII, No 3

Describes work of G. Robinow (1942) and M. Peahkoo
(1945) on bacterial cells. Author considers that
changes in grain, location and size, which they
considered as evidence of nuclear structure, are
in reality artefacts, caused by the stain employed.
Submitted 29 Nov 47.

2/4ST-9

Nov/Dec 48

Medicine - Bacteria
Medicine - Bacteria

"Adsorption of Bacterial Ferments by Chalk," A. A. Imshenetskiy, I. M. Avdievich, Inst of Microbiol, Acad Sci USSR, Moscow, 5 pp

"Mikrobiologiya" Vol XVII, No 6 p. 463-8

Ferments in bacterial cultures can be absorbed by filtering liquid through a layer of chalk. Dry preparations of bacterial amylase, protease, and pectinase can be obtained thus. Growing bacteria in mineral media facilitates subsequent adsorption of ferments. Ferments adsorbed by chalk are readily

34/49748

Nov/Dec 48

Medicine - Bacteria (contd)

elutriated with water, and activity of ferments is then the same as it was in the cultural liquid. Submitted 20 Jul 48.

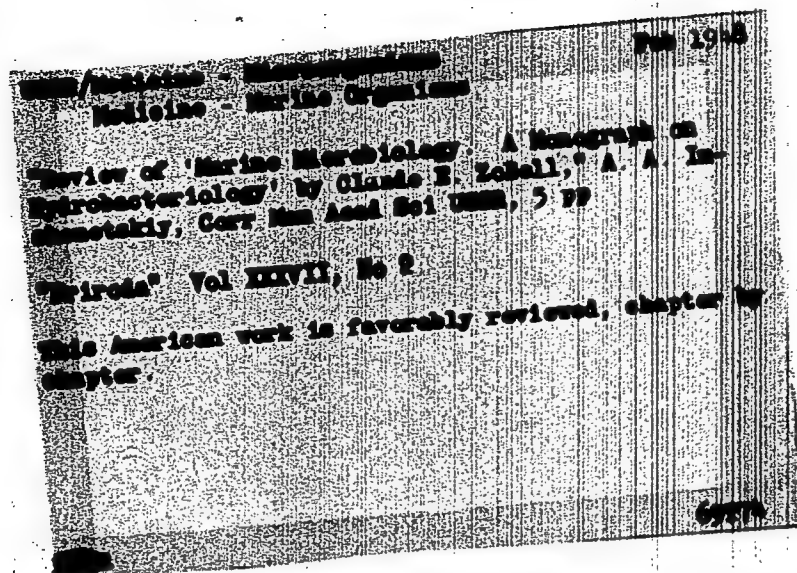
34/49748

IMSHENETSKIY, A. A.

PA 34/49748

PA 69774

IMSHENETSKIY, A. A.



IMSHENETSKIY, A. A.

23077 Optimal'nyye pitatel'nyye sredy dlya desul'furiruyushchikh bakteriy.
Mikrobiologiya, 1949, vyp. 4, C. 324-31

SO: LETOPIS' NO. 31, 1949

IMSHANETSKIY, A. A.

PA54/49T

USSR/Biology

Jun 49

Microorganisms
Adaptation

"Selection of Microorganisms," A. A. Imshenetskiy,
Gost. Mem. Acad Sci USSR, 8 pp

"Yeast At Nauk SSSR" No 6

Despite increasing use of microbes, there is still
practically no systematic work on improving the
valuable qualities of microorganisms or on creat-
ing new forms having the necessary properties. In
the Inst of Microbiol, a class of yeasts was ob-
tained with an increased temperature maximum for

54/49T

USSR/Biology (Contd)

Jun 49

growth by cultivating yeasts under a constantly in-
creasing temperature. Considerable interest is at-
tached to experimental derivation of a class of mi-
croorganisms which adapt themselves to various poi-
sonous substances, e.g., sulfur gas and sodium flu-
oride.

54/49T

IMSHENETSKIY, A. A. Prof

PA 67/49T76

USSR/Medicine - Antibiotics
Penicillin

Aug 49

"Review of P. A. Yakimov, O. V. Krusser and A. N. Shivrina's Book, 'Penicillin and Other Antibiotics,'"
Prof A. A. Imshenetskiy, 1 3/4 pp

"Priroda" No 8

Book gives a well-written short description of antibiotics, their uses and the doses applied. Gives due credit to Soviet scientists. In addition to facts about penicillin, includes data on: aspergillin, Actinomyces antibioticus, bacterial, human and animal antibiotics, and plant and balsam antibiotics. Despite some inaccuracies, it is a valuable book.

67/49T76

11C

C19

- Electron microscopy of myxobacteria. A. A. Imshant-
skii (Acad. Sci. Moscow). *Microbiology* 18, 393-5
(1949).—Electron microscopy reveals heterocysts in
Sporogium cells which show no markers to optical mi-
croscopy.
Julius F. Smith

IMSHENETSKIY, A. A.

PA 50/47100

USSR/Medicine - Bacteria, Culture

May/Jan 49

Medium

Medicine - Bacteriology

✓
"Best Culture Media for Anaerobic Cellulose Bacteria," A. A. Imshenetskiy, Inst of Microbiol, Acad Sci USSR, Moscow, 10 1/2 pp

"Mikrobiol" Vol XVIII, No 3

States that anaerobic cellulose bacteria develop more readily in an albuminous medium with cells than in any other medium. Submitted 6 Feb 49.

50/47100

IMSHENETSKIY, A. A.

PA 50/49T67

IMSHENETSKIY - Literature May/June 69
Medicine - Microbiology, Antibiotics

"Review of 'Antibiotics. Collection of References
and Annotations on Foreign Periodical Literature
Edited by Professor S. G. Pasynskiy,'" A. A.
Imshenetskiy, 1 3/4 pp

"Mikrobiol" Vol XVIII, No 3

Finds many deficiencies in the collection -- many
interesting works are not included, there is no
critical comment, etc. -- but more such collec-
tions are needed to keep abreast of foreign
publications.

20/49T67

USSR/Biology - Microbiology
Bacteriology
Jul/Aug 49

"Optimum Nutrient Substance for Desulfurizing Bacteria," A. A. Imshenetskiy, Inst of Microbiol., Acad Sci USSR, 8 pp

"Mikrobiologiya" Vol XVIII, No 4

Selective nutritive media for desulfurizing bacteria is less suited for obtaining cultures than the optimum medium which contains yeast water. Using this optimum medium in analyses of soils and mud in watersheds permits identification of desulfurizing bacteria in substances sown, and no sulfur-reducing action can be

14978

USSR/Biology - Microbiology (Contd) Jul/Aug 49
obtained by any other type of media. Submitted 23 May 49.

14978

PA14978

IMSHENETSKIY, A.A.

IMSHENETSKI A.A. Electron microscopy of mycobacteria Microbiology, Moscow 194^c, 18/5
(393-396) Illus. 7

The author compares the electron micrograms of a strain of Myxobacterium (Scrangium) with those of a strain of Esch. coli, and comes to the conclusion that in the first there are well-defined nuclei; which show characteristic division pictures, while in the second no such well defined nuclei could be found. He assumes that the nuclear substance of myxobacteria forms distinct nuclei, while that of eubacteria is diffuse.

Malek - Hradec Kralove

IMSHENETSKIY, A. A. -

Submitted 28 May 49

150750

USSR/Medicine - Microbiology
Bacteria

21 Jul 49

150750
"Feeding Microbes With Other Microorganisms," A.A. Imshenetskiy, Corr Mem, Acad Sci USSR, L. A. A. Kuturina, Inst of Microbiol, Acad Sci USSR, 2 pp

"Dok Ak Nauk SSSR" Vol LXVII, No 3

Test results of a new method of dissolving bacterial cells. Various bacteria were streak cultured (0.5 x 5.0 cm) on a lean culture medium, prepared with agar and distilled water in a Petri dish. Bacteriolytic cells were then transplanted in the center of the streak. Bacteria planted in the center indicated

150750

USSR/Medicine - Microbiology (Contd)

21 Jul 49

Growth along streak, i.e., in the area occupied by other bacteria. Microorganism's only source of food and energy was other living microbes. Author names this unusual type of feeding microorganisms "bacteriotrophic," and the bacteriophagic microbes "bacteriotrophs." Submitted 28 May 49.

B.A.

A 4

Effect of lichens on *Asotobacter*. Y. A. Imshenetskaya (Mikro-
biologiya, 1964, 20, 106—108).—On 77 species of lichens tested 24 had
an inhibitory effect on the growth of *Asotobacter chroococcum*, No. 17.
The extent of the inhibition varied with different strains and species
of *Asotobacter*. D. H. Sarver.

Oct 51

USSR/Medicine, Biology - Microbiology

"The Problems of the Selection of Microorganisms,"
A. A. Imshenetskiy, Inst of Microbiol, Acad Sci USSR

"Trudy Inst Mikrobiol" No 1, pp 108-119

Describes general principles of selection and directed modification of microorganisms. Cites examples of adaptation to antibiotics (e.g., typhoid bacilli to streptomycin after 14 reseedsings), to high temps (e.g., variety of *Saccharomyces cerevisiae* fermenting carbohydrates at 40°), to antiseptics (e.g. *Aspergillus arylae*, etc.). Mentions possibility of developing the capacity to synthesize some

209782

Oct 51

USSR/Medicine, Biology - Microbiology
(Contd)

practically useful vitamin or amino acid by depriving the microorganism of a supply of the substance in question (e.g., propionic acid bacteria synthesize thiamine; typhoid bacilli, tryptophan; dysenteric bacteria, nicotinic acid amide). Such new characteristics are inherited once they have been developed.

IMSHENETSKIY, A.A.

209782

188T73

IMSHENETSKIY, A. A.

USSR/Medicine - Microbiology Jan/Feb 51

"Bacteriophage Microorganisms (Evolution of Pre-bacteriophage and Parasitism)", A. A. Imshenetskiy, L. A. Kuzmina, Inst of Microbiol, Acad Sci USSR, Moscow

"Microbiologiya" Vol XX, No 1, pp 3-12

Mixococci viriscens (isolated from soil) were found to effect lysis of 10 species of bacteria, but not of those which have mucous capsules. These are adaptable. The mixococcus uses other bacteria as food by 1st killing them with special substances and then digesting them with proteolytic enzymes. They cannot do this in solid, but

188T73

USSR/Medicine - Microbiology Jan/Feb 51
(Contd)

only on the surface of solid nutritive medium. Antibiotics could not be isolated, but the proteases are very active and can be detected easily (they digest dead B. coli).

188T73

177-10000-10-17-10

IMSHENETSKIY, A.; PEROVA, K.

Production of amylase by plicated races of *Aspergillus niger*. Doklady
Akad. nauk SSSR 81 no.4:685-687 1 Dec 51. (CML 21:5)

1. Corresponding Member of the Academy of Sciences USSR for Imshenetskiy.
2. Institute of Microbiology of the Academy of Sciences USSR.

IMSHENETSKIY, A. A.

IMSHENETSKIY, A.A., otvetstvennyy redaktor.

[Transactions of the conference on controlled variability and selection in microorganisms, Nov. 29 to Dec. 1, 1951.] Trudy konferentsii po napravlennoi izmenchivosti i selektsii mikro-organizmov, 29 noiabria - 1 dekabria 1951 g. Moskva, Izd-vo Akademii nauk SSSR, 1952. 291 p. (MLBA 7:8)

1. Chlen-korrespondent AN SSSR.
(Microorganisms) (Variation (Biology))

IM. HENETSKIY, A.A.

Accumulation of biological mass in plicated form of *Saccharomyces cerevisiae*. *Mikrobiologiya*, Moskva 21 no.1:3-13 Jan-Feb 1952.

(OIML 22:1)

1. Institute of Microbiology, Academy of Sciences USSR, Moscow.

IMSHENETSKII, A.A.

Microorganism

Microbiology which asserts life, and microbiology which sows death. Vest. AN SSSR 22,
no. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, NOVEMBER 1952 ~~1952~~ Unclassified.

1. IMSHENETSKIY, A. ; KUZURINA, L.
2. USSR (600)
4. Bacteria, Aerobic; Karyokinesis
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Bacteria, Nitrifying

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Amylolytic activity of rugose strains of *Aspergillus niger*. *Mikrobiologiya*
22, 133-40 '53. (MIRA 6:3)
(CA 47 no.22:12523 '53)

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Describes exptl cultivation of R-type colonies of *Asper Niger*, which differ from the standard S-type in the dimensions of the fungi, the form and structure of the colonies, and the microscopic properties of the mycelium. Upon development on the surface of the liquid nutritive media, the wrinkled R colony forms a film the dry weight of which in a 6-day culture surpasses by 40% the dry weight of the film of the initial S-type colony of the same age and grown in the same medium. Liquor obtained from the R-type colony shows a higher amylolytic activity than the liquor of the S-type colony.

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Preparing pure *Nitronomonas* cultures. A. A. Imshenetskiy and B. L. Ruban (Inst. Microbiol., Acad. Sci. U.S.S.R., Moscow). *Mikrobiologiya* 22, 376-84(1953). ---Transplant from the *Agar* colonies in a medium partially set with agar to yield pure *Nitronomonas* cultures; so well adapted to transplant from a culture to a sterile medium containing specific nutrients for nitrifying organisms. Pure cultures are far less active than *Nitronomonas* in the soil, and are not activated by soil extracts nor by selective nutrients such as yeast autolysate. Humic substances are more effective, but full activity is regained only in mixed cultures e.g. with *Nitrocytus* or *Nitrosomonas*. Julian F. Smith

Imshenetskiy, A. A.

USSR/Microbiology

Card 1/1

Author : Imshenetskiy, A. A. Memb. Corresp. of Acad. of Sc. USSR

Title : Variability and selection of micro-organisms

Periodical : Priroda, 5, 35 - 44, May 1954

Abstract : Modern microbiology has many experimental ways of changing the hereditary characteristics of microorganisms. This includes the vegetative and sexual hybridization (the latter is not applicable in the case of bacteria as having no sexual process), controlled variability, use of highly effective factors etc. This report deals only in controlled change of microbes and the principles of selecting active forms of microbes, based on the correlation existing between the morphological signs of the culture and practically valuable physiological characteristics. The most perspective method for the selection of microorganisms is the controlled change of their characteristics. Graphs, drawings.

Institution :

Submitted :

IMSHENETSKIY, A.A.

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IMSHENETSKIY, A.A.; SOLNTSEVA, L.I.

Filtrable forms and variability of *Bact. fluorescens liquefaciens*.
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